

Abstract of the Disclosure

A 3-D solid model of a tire vulcanizing mold is constructed on CAD, lamination models the optimum value of the pitch of which is determined in consideration of molding accuracy and processing time are created by dividing this model in a predetermined lamination direction, slice data for each layer corresponding to the lamination pitch of each segment are created, a sector mold of the tire vulcanizing mold is manufactured by a powder sintering method based on the slice data, and the density of a sintered body is controlled by adjusting the output of a laser beam or the exposure time of the laser beam applied to the powders to provide a density distribution on the plane and in the depth direction of a mold element for each layer so as to obtain a tire vulcanizing mold having a hybrid structure.